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ENERGY = MC^2 ...THE MICHIGAN COMPUTER CONSORTIUM MAGAZINE

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MAY 1986



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 SU MO TU WE TH FR SA
 1 2 3 4 5
 6 7 8 9 10 11 12
 13 14 15 16 17 18 19
 20 21 22 23 24 25 26
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CONSORTIUM CALENDAR

MAY 1986

JUNE 1986
 SU MO TU WE TH FR SA
 1 2 3 4 5 6 7
 8 9 10 11 12 13 14
 15 16 17 18 19 20 21
 22 23 24 25 26 27 28
 29 30

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				LAMALUG APPLE EXEC	1 CMARC	2 CCUG
4	5 M36 EXEC	6 LACC	7 CAPKUG	8	9	10 DRUG
11 Mother's Day	12 TI USERS GROUP	13 HEATH SIG	14 ENERGY DEADLINE	15	16 CHAOS APPLE LUG	17
18 Computer Faire CMTUG	19 Victoria Day (CAN/M36)	20	21	22	23	24
25 Memorial Day	26 UPCO (IBM PC)	27	28 CP/M SIG	29	30	31

LANSING AREA COMPUTER CLUBS

ACM (Association for Computing Machinery)
 Meets Usually 2nd Wednesday, 6:00 pm (dinner); 7:30 pm (meeting); Mother Lode Restaurant, 3411 E. Michigan, Lansing. Contact Lew Crippen 377-6636 (days) 371-3179 (evenings); Mary Dike or Walt Davis 377-6636 (days)

Apple LUG (Lansing Users Group) (MC2)
 Meets 3rd Saturday, 9:30 A.M. 102 South Kedzie Hall, MSU, East Lansing. Contact P.O. Box 27144, Lansing, MI 48909; Gary G. Martin 394-0115 after 6pm. Executive Meetings First Thursday, 7:00 pm; Foster Community Center, 200 N Foster, Lansing

CAPKUG (Capitol Area Kaypro Users Group)
 Meets 2nd Thursday, 7:45 pm, Manley Miles Bldg., 1405 S. Harrison, East Lansing. Contact Win Wilkinson, 351-5866.

CCUG (Greater Lansing Color Computer Users Group) (MC2)
 Meets First Saturday, 1:00 P.M.; East Lansing Public Library, 950 Abbott, E.L. Contact P.O. Box 14114, Lansing, MI 48901; Dale Knepper (president) 626-6917.

CHAOS (Capitol Hill Atari Owners Society) (MC2)
 Meets 3rd Saturday 10 AM; 118 Physics-Astronomy Bldg., MSU, East Lansing. Contact PO Box 16132, Lansing, MI 48901; Leo Sell (president) 393-7792.

CHAOS STING (ST Interest Group)
 Meets 2nd Saturday, 10 AM; 118 Physics-Astronomy Bldg.

CMARC (Central Michigan Amateur Radio Club)
 Meets 1st Friday, 8:00 pm; American Red Cross Bldg., 1800 E. Grand River, Lansing. Contact Bill Hineman NBALL (president) 323-2914.

Comp Klub of Lansing (TI Users Group)
 Meets 2nd Tuesday, 7:00 pm; River Front Community Bldg, 501 N Cedar St, Lansing. Contact John Hayes 882-7860; Eugene Loyd 394-1494.

The Commodore Club (of St. Johns)
 Meets Every Tuesday night, 7-10 pm. Contact David Smalldon 224-4678, evenings.

DECUS GLLUG (DEC Users Greater Lansing Local Users Group)
 Meets Approximately every 2 months at a local DEC user. Contact C. M. Watson (secretary) 483-1111 (days).

DRUG (DEC Rainbow Users Group)
 Meets 2nd Saturday, 11:00 am; Institute for Family & Child Study, Home Management House #2, MSU (next to Berkey) Contact Jeffrey Wehl 353-3717 (days) 349-6967 (evenings).

LACC (Lansing Area Commodore Club)
 Meets First Wednesday, 7:00 PM; All Saints Episcopal Church, 800 Abbott, E.L. Contact PO Box 1065, East Lansing, MI 48823; Jae Walker (president) 351-7061.

LAMALUG (Lansing Area Mac and Lisa User Group)
 Meets monthly; different day in first week; 6 pm dinner; 7 pm meeting; Bonanza, 6727 S. Cedar, Lansing. Contact Dick McCarrick (Computer Consignments), 394-4408; Charles Winters 787-5731.

M36 (Mid-Michigan Microcomputer Group) (MC2)
 Meets Third Tuesday, 7:00 PM; Foster Community Center, 200 N Foster, Lansing. Contact PO Box 1302, East Lansing, MI 48823; Warren Wolfe (president) 337-7672. Executive Meetings First Tuesday, 7:30 PM; Beggar's Banquet, 218 Abbott, East Lansing.

M36 CMTUG (Central Mich. TRS-80 Users Group) SIG (MC2)
 Meets Third Sunday, 4:00 pm, DeWitt Memorial Building, 206 N. Washington, DeWitt. Contact Lee Hodges 669-3258

M36 CP/M SIG (MC2)
 Meets Last Thursday, 7:30 PM; Foster Community Center, 200 N. Foster, Lansing. Contact Greg Martin 484-5850 or Tim Childs 321-4072.

M36 Heath/Zenith SIG (MC2)
 Meets 2nd Wednesday, 7:30 pm; All Saints Episcopal Church, 800 Abbott, E.L. Contact Tom Trana, PO Box 829, East Lansing MI 48823.

M36 Osborne SIG (MC2)
 Meets Last Saturday, 1:00 pm; In a member's home: call for directions. Contact Larry Tirone 484-3921.

MSU MUG (MSU & Capitol Area Macintosh Users Group)
 Meets Monthly during MSU school year. Contact John Sykes 332-6720.

U.P.C.O. (Users' Personal Computer Organization--IBM PC group) (MC2)
 Meets 4th Tuesday, 7:30 PM; Agricultural Engineering Bldg., MSU. Contact Skip Osterhus 321-3425.

Clubs designated (MC2) are members of the Michigan Computer Consortium.

This listing is as accurate as the information we receive. To list an event or update information, contact Joe Werner at 337-7415 (evenings), or on the local BBSs BabbleNet or LSJ Access, or via MCI Mail (JWERNER).

ABOUT ENERGY

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Subscriptions to ENERGY are provided as a benefit of membership in one of the clubs constituting the Consortium. Subscriptions are not otherwise sold, but ENERGY can be purchased over the counter at many greater Lansing area locations. For information about joining one of the clubs, consult the list on page three of this issue, or write to the club in care of the Consortium at the address above.

ABOUT THE MICHIGAN COMPUTER CONSORTIUM

The Michigan Computer Consortium (MC2) was formed in 1983 to sponsor joint activities involving member clubs. Current members of MC2 are:

AppleLUG (Apple Lansing Users Group)
CCUG (Greater Lansing Color Computer Users Group)
CHAOS (Capitol Hill Atari Owners Society)
M3G (Mid-Michigan Microcomputer Group)
UPCO (Users' Personal Computer Organization)

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ADVERTISING

Advertising in ENERGY is an economical way to promote your products or services to well over 500 bona-fide computer users in the Lansing area. Four sizes of ads are available, with discounts for multi-issue contracts. Camera-ready ad copy is needed by the 15th of the month preceding publication. Limited graphics artwork is available at an extra charge. For more information, contact the Editor, listed above.

ARTICLE SUBMISSIONS

We encourage your article submissions. Contact your club's Editorial Board representative. We use compressed mode printer copy, with 3.5 inch columns and 8 lines per inch. Deadline for articles is the 15th of the month preceding publication.

OUR COVER ARTIST

Joe Taylor, whose artwork has graced our covers since the January 1985 issue, is a professional artist living and working in Chicago. He works in many forms: oils, sculpture, stained glass, etc. He can be contacted at 607 West Buckingham, Chicago IL 60657.

M3G



ABOUT M3G

Mid-Michigan Microcomputer Group (M3G) is a non-profit organization of computer hobbyists, enthusiasts, and users in the Lansing and Mid-Michigan area. Formed in 1975, M3G is the oldest personal computer organization in the area, and one of the pioneer organizations in the country. Membership in the club is open to anyone with an interest in personal computing.

M3G is a member of the Midwest Affiliation of Computer Clubs (MACC), and the Michigan Computer Consortium (MC2).

MEETINGS

General Membership meetings are held each month, on the third Tuesday of each month at 7:30 pm, at the Foster Community Center, 200 N. Foster, Lansing. Executive Committee meetings are held on the first Thursday of each month at 7:30 pm, at Beggars Banquet restaurant in East Lansing. Visitors are welcome at all meetings.

NEWSLETTER

M3G members receive ENERGY, published by the Michigan Computer Consortium, as a benefit of membership.

SOFTWARE LIBRARY

M3G has an extensive collection of public domain software for the TRS-80, as well as the SIG/M and CPMUG collections for CP/M, and other software.

DUES

Annual dues for M3G are \$12.00, for 12 consecutive months. Family memberships (two or more people at the same address, receiving only one copy of the Newsletter) are available. The Master member pays full dues; additional family members joining at the same time each pay \$1.00 per year.

SPECIAL INTEREST GROUPS

M3G currently has four active Special Interest Groups: the Central Michigan TRS-80 Users Group (CMTUG) SIG, the CP/M SIG, the Heath/Zenith SIG, and the Osborne SIG. These SIGs hold additional meetings as their members desire, and may charge SIG dues in addition to M3G dues if the SIG so decides. SIG meetings are announced in the Meeting Calendar in ENERGY. Additional SIGs may be formed on any computer-related topic which M3G members may want.

EXECUTIVE COMMITTEE

President.....Warren Wolfe.....337-7672
Vice President.....Frank Dolinar.....351-1779
Secretary.....David Rovner.....337-9369
Treasurer.....Joe Werner.....337-7415

MACC Trustee.....Frank Dolinar.....351-1779
MC2 Delegate.....Joe Werner.....337-7415
CMTUG SIG Chairman.....Lee Hodges.....669-3258
CP/M SIG Chairman.....Greg Martin.....484-5850
Heath/Zenith SIG Chmn...Tom Trana.....351-8655
Osborne SIG Chairman....Larry Tirone.....484-3921

To join M3G, please fill out the following, enclose with your dues, and mail to M3G, c/o P.O. Box 1302, East Lansing, MI 48823, or come to a meeting.

NAME: _____

ADDRESS: _____

CITY, STATE: _____ ZIP: _____

PHONE: _____ (home) _____ (office)

Dues:	() M3G	\$12.00
	() Family membership	\$ 1.00
	() CMTUG SIG	(no additional dues)
	() CP/M SIG	(no additional dues)
	() Heath/Zenith SIG	(no additional dues)
	() Osborne SIG	\$ 2.00

TOTAL:

THE USER
by Joe Werner

COMPATIBILITY REVISITED

One of the recurring topics of my last several columns seems to have been compatibility. Lack of compatibility has been the downfall of a lot of systems. Witness the fact that you can now buy a Tandy 2000 (a very competent system that is almost but not quite IBM PC compatible) at a much-reduced price. It seems that the value of IBM PC compatibility, or more likely, the cost of incompatibility, is great.

I am dealing with compatibility on several levels these days. This article is being written on a Radio Shack Model 100 portable under its text editor, which is a nice, but very simple, editor. I will then transfer the article to our On-Site PC Clone for final editing and printing. While not writing articles, I am working with a Unix system, a PDP 11 system running RSX-11M, and a DEC VAX system running the VMS operating system. And somewhere along the way, I'll need to fire up my CP/M based IMSAI system. How many operating systems and operating environments is that? How many different text editors is that? For that matter, how many different keyboards is that? Is there any wonder that some people put great stock in compatibility -- even if it's a bad standard, it may be better than no standard.

There are several very good systems in the Personal Computer market today that are not IBM PC compatible. The most prominent among these are the 68000 based systems, including the Apple Macintosh, the Atari 520ST and 1040ST, and the Commodore Amiga. These are all good systems, from a number of perspectives, but they lack compatibility with the "standard" of the industry, and therefore with the vast array of software which has been written for that system. But the biggest problem, I feel, is that these systems are not even compatible among themselves. Data are not readily transportable, disk formats are different, and operating systems have different capabilities. When Atari tried to use the GEM system from Digital Research (DRI), which looks somewhat like the Macintosh environment, Apple filed suit against DRI, claiming that the "visual effect" of the GEM "desktop" violated Apple's copyrights. DRI caved in to Apple, withdrew GEM, and made several changes to make GEM look less like the Macintosh. Such action may make a standard among the 68000 based systems much harder to come by, and may indirectly help reinforce the IBM PC "standard". I think it's a shame.



(Incidentally, speaking of GEM, did any of you see that IBM recently signed on as a distributor of the GEM package!)

CLONE SYSTEMS

There are several deals on PC Clone systems available locally. OnSite continues to introduce revisions of the Turbo XT I reviewed in the February ENERGY. They are advertising a new version of the Turbo XT, capable of running at 8 MHz. They have also introduced an AT clone.

Also worth looking at is the PC Clone from Mitac being advertised and sold by Computer Consignments. Mitac has been making Apple disk drive add-ons for some time, and has now moved into the PC Clone market with a very nice-looking system. One caution: as I write this, a problem has cropped up trying to hook an older model HP LaserJet printer to the Mitac serial port. This should have been solved by the time you read this. But if you're not willing or able to debug such a problem yourself, local dealer support for a clone could be invaluable. Stated another way, if you mail-order and have a problem, you get to debug it or hassle with the mail-order house. Part of the money you save when you mail-order is support. With local prices so low, is it worth it to you?

BUYING SOFTWARE

I recently found myself in the market for some IBM PC compatible software packages. Two places in town deserve mention. The first is Software City in Okemos. They have a pretty good selection in stock, and may be able to demonstrate a package before the sale. They also have a sliding discount scale, which gives a fairly favorable price to larger purchases. Software City stocks software for Apple (including Macintosh), Commodore, Atari, and IBM.

Another place worth a visit is Computer Consignments, a regular advertiser in ENERGY. Dick McCarrick stocks some software, including both new and "previously owned" software (but only legitimate copies with documentation). Recently, Dick special-ordered some software for me; I was pleasantly surprised by the favorable price (close enough to mail-order to make it attractive) and by the next-day (that's right, next-day!) delivery.



While we're on the subject of Computer Consignments, note that they are moving (and have probably moved by the time you read this.) The new address is 5501 S. Cedar, Suite A, Lansing. This will be a new building across the street from Burger King. The store should be more accessible, with better parking and more space. Congratulations to Dick McCarrick and company.

Another change of note: Home Video Outlet, one of the local outlets for Commodore Amiga and C-128 and small computer supplies, has changed its name. It is now Direct Access Computers. Home Video had a good reputation, but an identity crisis, as they moved more heavily into computers than into video. The name change should be good for them. Best wishes to Direct Access.

UPDATE

In last month's ENERGY, I reviewed the Morrow Pivot 2, a very competent portable. As the article was being written, Zenith won a government bid for around 15,000 portable computers for the IRS. The Zenith computer, as I reported last month, is a design licensed from Morrow Computers. If you read the trade press, you know that IBM was widely rumored to have that IRS deal locked up, on the basis of an unreleased portable code-named "clamshell".

Since last month, several things have happened. IBM held a huge new product announcement on April 2, at which they announced new XT and AT products, new software, and the "clamshell" portable. And Morrow, one of the most respected old names in the Personal Computer industry, has filed for protection from creditors under Chapter 11 of the Federal Bankruptcy Act. George Morrow, who started out building S-100 boards under his own name and under the Thinker-Toys name in the mid-Seventies, claims that the market for portable computers dried up for several months while buyers, encouraged by press reports that IBM had locked up the IRS deal and would announce its portable soon, waited patiently to see what IBM's product would look like.

This has happened before. A new, unreleased IBM product starts getting talked about in the trade press; everyone sits back and waits to see what the product will be; and IBM competitors suffer. Often it is accidental; sometimes it appears carefully orchestrated. Often it is subtle. A few times, it has attracted the attention of Federal Antitrust investigators. But every time this has happened, it

has happened with the assistance of the trade press and us, the buyers, who often don't realize how we are being manipulated.

IBM is not the only company to be involved with this. In the early days of personal computer kits, some people disregarded the IMSAI, Altair, and Processor Tech Kits, waiting confidently and patiently to see what Heathkit would do. (The Heathkit offerings were rather disappointing when they finally did come out.)

I guess the real message here is that we all need to learn to recognize who is manipulating whom and how. And perhaps it's time for the trade press (and I include myself) to practice some restraint in speculating about fantastic new products that may only be someone's dream.

LETTER FROM THE EDITOR

I have submitted to the president of the Michigan Computer Consortium my resignation as editor of ENERGY, effective once the June 1986 issue is brought to press. By that time I will have edited newsletters for Lansing area microcomputer hobbyists for five years. That's enough for me; I have other, stronger enthusiasms by now.

I am mentioning this now so that all of you will be aware that a new editor for ENERGY is needed. The magazine looks the way it does because that's the way I wanted it to look, and I still have ideas about what else can be done to improve its appearance and editorial content. But I sense that there are those among you who have other ideas for ENERGY: now is the time for you to step forward and put those ideas into practice.

The uninitiated might look at the size and polish(?) of ENERGY and quickly assume it's beyond him/her to take over its publication. Actually, the editorial board members do most of the work by writing, selecting and assembling the sections for individual clubs. I do relatively little: 1) paste up text columns on blank bordered sheets, 2) count total pages and cut some when necessary, 3) paste up ads and scatter them throughout the issue, 4) number the pages and assemble the table of Contents, 5) paste up and date the cover, 6) tape double sheets together for the printer's camera, and 7) take the copy in to be printed. Other members pick up the printed magazines, affix mailing labels, and take them to the Post Office. What could be easier?

Seriously, I am deeply indebted to Consortium Editorial Board members for their practical and moral support over the years. As most of you know, none of them has ever received a cent for their labors in behalf of you, the readers of ENERGY. If there has been a key to our long-term success, it is that the labor has been well distributed among several conscientious volunteers, and I believe this will remain the key if ENERGY and the Consortium's other activities are to flourish. I am a firm believer in the idea that "the people" get what they deserve, especially where volunteer organizations are concerned: ENERGY will live or die in accordance with its readers' commitment to it.

Jackson Design Methodology By Ginny Werner

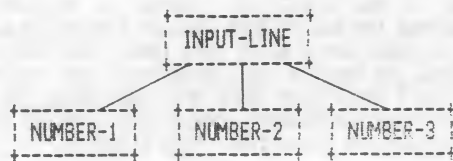
Back in 1982 I wrote an article on Jackson Design for the M3G newsletter. This is that same article revisited.

The design of a program can help or hinder its testing, coding and maintenance. Everyone has his favorite method for designing a program. Mine is a combinations of Jackson Design Methodology and my version of pseudo code.

The main attraction of Jackson design (for me at least) is that it gives a way of picturing inputs and outputs clearly. I have found that sometimes being able to view the inputs or outputs in different ways helps me to design a program easier.

With Jackson you make diagrams of the inputs and outputs and then combine them to come up with a program diagram. You write your pseudo code from this program diagram. To illustrate this, let's take an example.

Say you want to write a program that takes 3 numbers and averages them. The first thing that Jackson makes you realize is that there is more than one way of getting numbers into your program. One way is to read all three numbers in at the same time as if they were entered on the same line. The input diagram for the input would then be as follows:

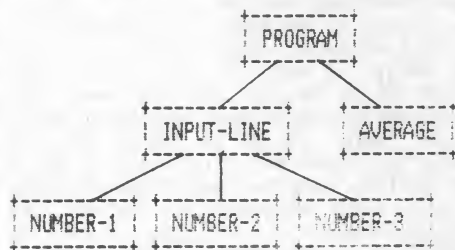


This diagram says that the input is made up of one INPUT-LINE on which there are three numbers one after another. Notice that each box has a unique label. Each box must have a unique label so it can be identified when combining the diagrams.

The output diagram for this program would look like this:



We now combine the input and output diagrams to come up with a program diagram. It looks like this:



The pseudo code for this diagram should look like this:

```

PROGRAM
  read INPUT-LINE
    process NUMBER-1
    process NUMBER-2
    process NUMBER-3
  write AVERAGE
  
```

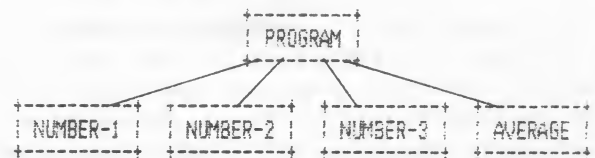
Notice that there is one line of pseudo code for each box in the program diagram. In true Jackson pseudo code this would always happen. I am rarely that picky.

There is a second way of looking at the input for the same program. This would be to read the numbers in one at a time as if accepting them from the keyboard. The Jackson diagrams for this way of looking at things would be:



Notice that each number is its own separate input.

The program diagram now looks like this:



And the pseudo code for this program would look like this:

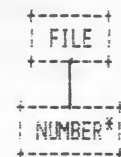
```

PROGRAM
  read and process NUMBER-1
  read and process NUMBER-2
  read and process NUMBER-3
  write AVERAGE
  
```

Notice there is no loop. In Jackson there is no way to show a loop that is done a specific number of times.

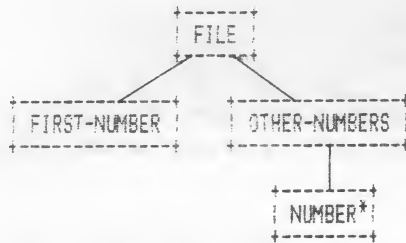
So far I have only talked about sequential data. Sequential data is indicated by having the upper right hand corner of the box blank.

Let us change the example we've been using. We now want to average many numbers and there will be one number per line of our input file. The Jackson Diagram for the file would be:



The asterisk in the upper right hand corner of the box labeled NUMBER indicates iteration. In Jackson Methodology iterations are performed zero or more times. The test is always done at the top of the loop. This diagram is saying that the file has zero or more lines in it and every line that exists has exactly one number on it.

If there has to be at least one number in the file the diagram changes to:



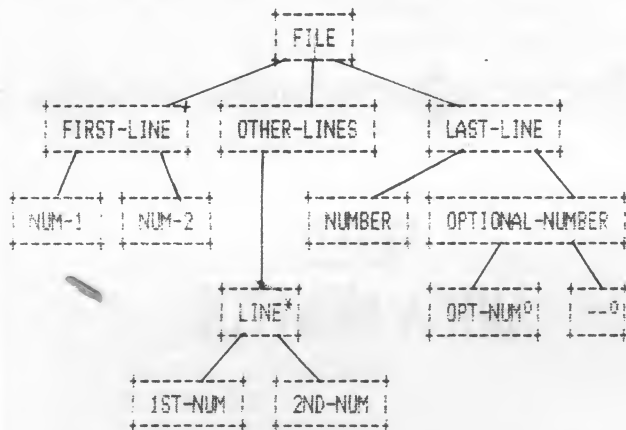
In Jackson diagrams, when things are made up of more than one piece, the pieces must all be of the same type. In the diagram above, FILE is made up of two pieces. Since the first piece (FIRST-NUMBER) is a sequential piece, the second piece also has to be a sequential piece. Therefore, the second piece OTHER-NUMBERS was used and defined as an iteration of zero or more NUMBERS.

The pseudo code for the above diagram would be:

```

process FILE
  process FIRST-NUMBER
  while there are OTHER-NUMBERS
    process NUMBER
  
```

But what if the file had two numbers on a line except for the last line of the file which has either one or two numbers on it? The Jackson diagram would be:



This diagram says that FILE consists of three sequential pieces. The first piece is FIRST-LINE which consists of two sequential pieces, NUMBER-1 and NUMBER-2. The second piece of FILE is the OTHER-LINES (those which are neither the first nor last line). This piece of the file consists of zero or more LINES each of which consists of two numbers, 1ST-NUM and 2ND-NUM. The third piece of FILE is LAST-LINE which consists of a NUMBER and an OPTIONAL-NUMBER. The optional number is either there (OPT-NUM) or it is not there.

The circle in the upper right hand corner of a box means that there is a choice of what is actually there. What is in the box is one of the choices. A box with only a line in it indicates a null, that is that one of the choices is nothing.

The pseudo code for the above diagram is:

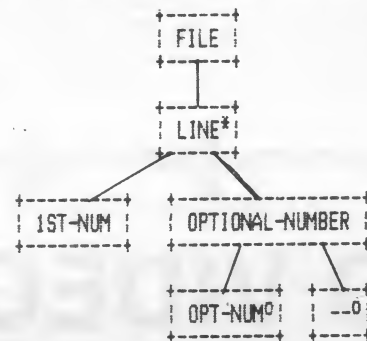
```

process FILE
  process FIRST-LINE
  while there are OTHER-LINES
    process 1ST-NUM
    process 2ND-NUM
  process LAST-LINE
  process NUMBER
  if there is an OPTIONAL-NUMBER
    process OPT-NUM
  else
    do nothing
  
```

Each choice in a Jackson diagram must be accounted for. Therefore, every if statement in the pseudo code must have an else clause. When one of the choices is null, the else clause is "do nothing".

If you define the file with a special last line then you will have to do a read ahead to determine if this is the last line of the file. You would probably define the file in this manner if there were some special processing associated with the first and last lines of the file.

For the purposes of our program to average numbers, there is an easier way to look at the file. It is to say that every line of the file consists of one or two numbers. The diagram for the same file would then be:



Its pseudo code would be:

```

process FILE
  while there are LINES
    process 1ST-NUM
    if there is an OPTIONAL-NUMBER
      process OPT-NUM
    else
      do nothing
  
```

We could have added that each number has to be an integer and has to start with the number 2. This brings up the concept of good data, error data, and unexpected data. Good data is the data you really want. In this case a number starting with 2. Error data is data you expect, but which you don't want. In this case anything that doesn't start with a 2. Unexpected data is data that you don't allow for in your program. In this case it might be the number 2,000,000, which is probably too large for an integer to handle.

How elaborate a view you take of your data often depends upon what detail you really need. Sometimes detail is important, other times it is not. I like being able to choose what suits my needs and Jackson diagrams give me that option.

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Apple Lug

Apple LUG News

May, 1986

APPLE LUG NEWS

Apple LUG Officers

<i>President:</i> Gary G. Martin	822 W. Willoughby Rd., Lansing	394-0115
<i>Vice-President:</i> Jeff Howell	5120 Okemos Rd., E. Lansing	349-3831
<i>Treasurer:</i> Bruce McConnell	13805 Schavey Rd., DeWitt	669-8489

PROGRAM THIS MONTH

Our program for May will be a real treat for those of us who use or would like to enhance our ability to use Data Base Management. Dr. Richard McLeod has developed techniques that go far beyond basic record keeping and he has agreed to share them with us. Dr. McLeod is Professor of Education at MSU, and teaches these techniques as part of his lectures. We will be meeting on Saturday morning at 9:30 AM in South Kedzie Hall; Room 102. There is a chance that we may be meeting in Erickson Hall again this month in Room 132. If we do then the meeting will begin at 10:00 AM. Look for the signs.

CORRECTIONS FROM NIBBLE

The following messages were taken from the LSJ-Access Bulletin Board.
01/07/86 From: JIM DENIKE
To: APPLE USERS
Subj: NIBBLE MAGAZINE

Anyone who is using ProDOS who would like ProDOS patches (COPY, TYPE, ect.) may be interested in the last couple of copies of NIBBLE magazine.

NIBBLE has chiefly printed programs for DOS 3.3, but in the last couple of issues they have been publishing Machine Code ProDOS patches to allow the use of new ProDOS commands.

Subj: ERRATA ENHANCEMENTS

Richley's Two-Liner (Vol.6/No.7)

The HCOLOR is not specified causing the globe, at times, to be animated in black. Type the following before RUNning the program:

HCOLOR = 3

Note: You can also add this statement to the beginning of line 1.

Lightning Copy (Vol.6/No.7)

Due to a problem with the disk volume number, the disk initialized with Lightning Copy would sometimes not boot. Do the following to patch the program:

BLOAD LIGHTNING.COPY

POKE 2057,254

BSAVE LIGHTNING.COPY,A\$803,L\$5C7

ProDOS/DOS 3.3 Doubleboot (Vol.6/No.8)

In creating the file 'DOS3.3', the documentation states that the procedure is as follows:

CALL-151

AA5F:0

2080 9D00.BFFFFM

This incantation will not work due to the actions of DOS. Instead, use the following commands:

CALL-151

AA5F:0 N 2080 9D00.BFFFFM

For those of you who have an incorrect DOS3.3 under the ProDOS operating system, patch the file with the following ProDOS commands:

BLOAD DOS3.3,A\$2000,TSYS

CALL-151

2DDF:0

BSAVE DOS3.3,A\$2000,L\$2380,TSYS

Also, the final sections of DOUBLER (p. 51) and DBBOOT (p. 54) are printed twice. For example, it is not necessary to enter locations \$2432 to \$246B on DOUBLER twice.

Page Lister (Apple Secrets p.188)

The PAGE.LISTER program listing is incomplete. See the additional code below. Save the listing with the following command:

BSAVE PAGE.LISTER,A\$300,L\$2B

Additional Code:

031F - 2C 10 C0 20 58 FC 68 A8

0327 - 68 4C F0 FD 00

Nibble Planetarium (Vol.6/No.10)

The program TABLE.CREATE does not create the STAR.TABLE correctly. This causes problems when attempting to run PLANETARIUM. Change line 170 to read as follows:

```
170 PRINT NS: FOR I = 1 TO NS: PRINT RA(I):  
PRINT DEC(I): PRINT MAG(I):  
PRINT NM$(I): NEXT
```

Also, change the statement 'CALL 868' in line 2100 to 'CALL - 868'.

Recovering Deleted ProDOS Files
(Vol. 6/No. 10)

References at the beginning of the printed object code to addresses \$82BA-\$82F7 are two bytes lower than they should be. BLOAD EXHUME.FILE, enter the Monitor with CALL -151, change the 41 bytes listed, and BSAVE EXHUME.FILE,A\$8000,L\$42A.

Note: The source code should assemble properly as listed.

```
8008: F8 8035: BB 8039: BC  
8051: BB 8056: D5 805B: E1  
8061: F3 8066: F4 806B: F5  
8070: F6 8075: F7 807A: BE  
807D: BF 8082: BC 8095: BC  
8098: C5 80A3: F6 80A6: C0  
80A9: F7 80AC: C1 80AF: DE  
80BC: BD 80BF: BD 80D0: F6  
80D3: F7 80DB: E9 80EB: BE  
80F2: BB 80F9: C4 8102: C4  
8118: F6 811B: C2 811E: F7  
8121: C3 8124: BE 8129: BE  
8132: F6 8138: F7 813B: BB  
8140: BB 8004: AC
```

ProDOS COPY command (Vol.6/No.12)

There were several missing apostrophes in the source code listing of COPY on page 52. Please note the following changes:

202 ASC 'A file transfer utility'.

204 ASC ' by Ken Manly, Buffalo Chip Software'

Note: This change only effects readers who entered the source code, not those who enter the listing through the monitor.

This information was downloaded from NIBBLE HOTLINE : 617/369-8920

COMPUTER SHOW COMPUTER SHOW

The MID-MICHIGAN COMPUTER SHOW sponsored by the Lansing Area Computer Clubs is officially here. The show will be May 18th, 1986; Sunday 10:00 a.m. until 5:00 p.m. There will also be seminars for the public at the show from 12:00 noon until 4:00 p.m. The cost of the tickets is \$2.00 which are available in advance or at the door. The show will take place at the Clarion Conference Center (Formerly Longs Convention Center) in the Ballroom. Besides the area Computer Clubs at the Show there will also be vendors selling miscellaneous items of interest to all.

For our own Club we will have a table there. We are hoping to a representative from Apple there also. There will be a membership special for those who are interested in joining the Club at this time. We are also planning on some specials from the Disk Library at the Show. When you come to the Show be sure to stop by and register for a drawing for a one year subscription to Nibble. All current members are eligible for this drawing.

We are looking for ideas for our table set-up and possible displays. If anyone would be willing we could also use some equipment brought in. And of course we need people to help at the table through the day. Please contact Gary G. Martin at 394-0115 after 6:00 p.m. with help on any of the above items.

Apple Lug

Apple LUG News

May, 1986

THANK YOU NOTE

Apple L.U.G. would like to thank Apple Computer and Dick McCarrick from Computer Consignments for the door prizes they have furnished to us. When available we will have door prizes at the monthly meeting. To be eligible all you have to do is to be a current member of Apple L.U.G. and come to the meeting.

PROGRAM CONTEST

Starting in May we are going to have a program contest. The winner of the contest will receive a subscription to Nibble for one year. The contest ends June 30th, 1986. All programs submitted must be original and public-domain. Programs submitted will be entered into the public-domain Library of the Club. The winning entry will be decided by the Board of Directors.

EDUCATION S.I.G.

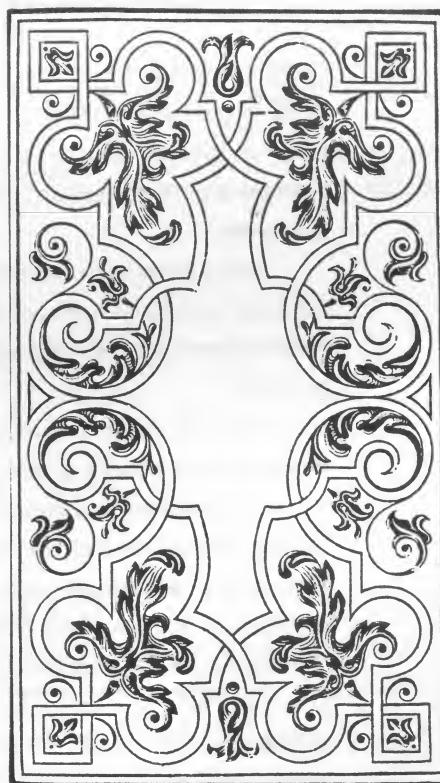
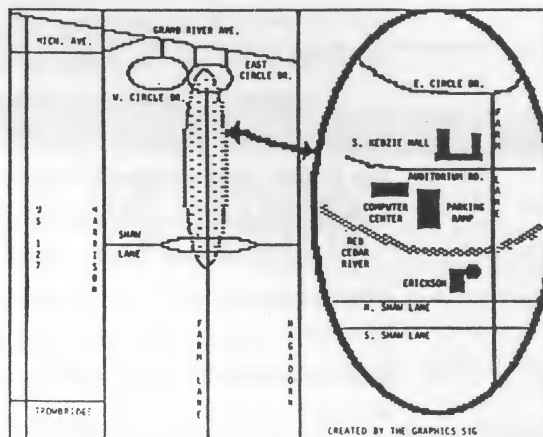
Chairperson: Judy Haught

The Education S.I.G. will meet on the 2nd Saturday of the month. They will meet at 9:30 a.m. at the following location:

Computer CoOp
5127 - C Aurelius Rd.
Lansing, MI 48910
(Corner of Aurelius and Jolly)
Ph: 882-3041

ELECTION TIME

At our meeting this month we will have our annual election of officers before the program begins. This year we will also be electing persons for the five positions of Directors. In the mean time if any of you are interested in any of the positions please let one of the current Officers know.



APPLE COMPUTER ORDERS CRAY X-MP SUPERCOMPUTER

CUPERTINO, California--February 20, 1986--Apple Computer, Inc. and Cray Research, Inc. today announced that Apple has ordered a CRAY X-MP/48 supercomputer.

Installation of the system, which is valued at approximately \$14.5 million, is scheduled to begin this March at Apple's headquarters in Cupertino, Calif. Apple said that it would use the system to simulate future hardware and software architectures and to accelerate new product development.

"In order for us to remain a technology leader in the personal computer industry, we must be willing to make significant investments in research and development," said Delbert W. Yocam, Apple's executive vice president of product operations. "With the Cray supercomputer and its powerful simulation capabilities, we will be able to evaluate a greater variety of future product directions, which will help us continue to bring revolutionary products to the marketplace."

Apple Computer designs, manufactures and markets personal computers and related software and accessories for use in business, education and the home.

Cray Research is engaged in the design, development and manufacture of large-scale computers and the marketing and support of such systems.

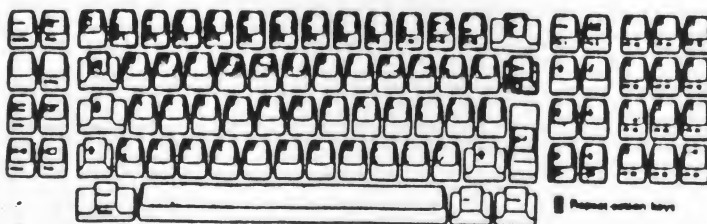
APPLE ANNOUNCES SETTLEMENT OF LAWSUIT AGAINST FOUNDER

CUPERTINO, California--January 17, 1986--Apple Computer, Inc. today announced settlement of the lawsuit the company filed against former chairman Steven Jobs for breach of fiduciary responsibilities and threatened misappropriation of Apple's proprietary information when Jobs formed his own company with former Apple employees.

"We've come to an agreement which we believe solidly protects our shareholders' interests," said Albert A. Eisenstat, Apple's senior vice president, general counsel. "We're pleased Apple's objectives in the litigation were achieved and Apple's rights protected."

Under the agreement, Jobs has agreed to restrictions on his product and marketing plans and the hiring of Apple employees.

The settlement also gives Apple the right to inspect any new computer from Job's new company before it can be marketed to determine if any of Apple's proprietary information or technology was used. If Apple believes violations have occurred after inspection of Jobs' prototype product, any further proceedings will be heard by Honorable J. Barton Phelps, the Special Master previously appointed by the court, sitting as arbitrator. As part of the agreement, Apple has agreed to dismiss the lawsuit without prejudice to its right to refile the claims with Judge Phelps in the event of a breach of the settlement or if Job's company is found to have used Apple's proprietary and confidential information.



Apple Lug

APPLE L.U.G. WELCOMES YOU!

"WHO"

Apple L.U.G. (*Lansing Users Group*) is an organization of Apple users in the mid-Michigan area. It was organized in early 1981 to provide a forum for the exchange of information and a means of helping new users to better understand and use their equipment. Apple L.U.G. extends a cordial welcome to anyone interested in learning more about Apple microcomputers software, hardware, etc.

"WHAT"

Our meetings are informal and consist of thirty minutes of announcements, comments, news, questions and answers, etc. This is followed by a program lasting about an hour. Program topics include demonstrations and reviews of hardware or software followed by questions and answers. Visitors are always welcome.

"WHEN"

Apple L.U.G. meetings are held at 9:30 a.m. on the third Saturday of each month.

"WHERE"

Apple L.U.G. usually meets in Room 102, South Kedzie Hall, Michigan State University, East Lansing. It is located at the northwest corner of the intersection of Farm Lane and Auditorium Road.

"WHAT ELSE"

1. Disk Library - Apple L.U.G. has a library of over 185 disks containing well over 2,000 public domain software programs, which are offered for sale to members at reduced rates. Disks are purchased from the International Apple Core, other Apple user groups and other

organizations. The Disk Library contains a variety of useful programs for computer hobbyists, for students, for business and recreational applications.

2. Newsletter - The Apple L.U.G. News is no longer published independently, but has been incorporated into **ENERGY** magazine, which appears monthly, and contains news from the five member user groups which make up the Michigan Computer Consortium. The aim is to provide Apple L.U.G. members with the best possible guide to *all* computer related activities within the local area, in addition to monthly program announcements.
3. Tutorials - Experienced Apple users within the club conduct tutorials on topics of special interest to the membership. Members pay reduced rates.
4. Special Interest Groups (SIG) - Members with specialized problems or interests are encouraged to join others in SIG's (*e.g.* Communications, Education, Graphics) which meet independently of the monthly meeting.

"HOW MUCH"

Membership dues are \$12 for the calendar year or \$1 per month prorated. Make checks payable to Apple L.U.G. and mail to:

Apple L.U.G.
P. O. Box 27144
Lansing MI 48909



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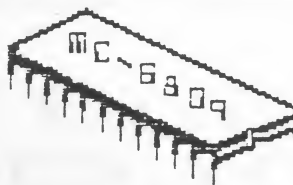
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OPEN EVENINGS & SATURDAY

CCUG

GREATER LANSING
COLOR COMPUTER
USER'S GROUP



P.O. BOX 14114 - LANSING MI 48901

[illegible]

We are the Greater Lansing Color Computer User's Group (GLCCUG or CCUG). Devoted to the Color Computer and it's powerful Motorola MC6809E microprocessor, the group was established in 1981.

Our members share a wide range of interests. We reflect levels of knowledge from the beginner to the expert, from the programmer to the hardware hacker, from the "HAM" radio operator to the modem lovers, and from the young to the young-at-heart.

CCUG meetings are held each month at 1:00 PM in the East Lansing Public Library. The meeting date is usually the first Saturday of the month (please check schedule). Our meeting format begins with CCUG business, a feature program with speakers and/or demonstrations of software/hardware, time to talk with other members and access to the club library. Guests are welcome to attend!

Membership is \$12.00 per year for adults and family, \$6.00 for computerists under 18 years of age. Membership includes your personal subscription to ENERGY magazine, a voice in the club, and access to the CCUG library of Color Computer programs.

CCUG Officers:

President	Dale Knepper	626-6917
Vice President	Hugh Betz	323-7360
Treasurer	Craig Hahn	372-1764
Librarian	Malcolm Cleveland	485-6743
Publicist	Evonne Johnson	485-2727
Consortium Rep.	Don Warner	(313) 266-4897
Contributing Editor	John Evans	393-4098

CCUG Schedule:

The next meetings of the Greater Lansing Color Computer User's Group will be held on May 3rd and June 7th at 1:00 PM in the East Lansing Public Library.

CCUG

/// Important Announcement ///

I have an announcement which has <NOTHING> to do with CCUG or computers.... On March 31st at 7:56 pm, my wife gave birth to our first child.

We named our new daughter: Lavonna Lynnsilee. Her name is from her mother's special name, Lavonna Lee. Welcome to the world little girl!

With Love, Dad

///// Presidential Notes ///// From Dale Knepper

Our CCUG President relayed information over the telephone via voice. I'll try to report it accurately....

We are receiving responses from CoCo User Groups within the state. Have a modem? Jot this BBS telephone number down: (616) 345-0536 is the data line for Sunburst BBS. The Sysop is a member of the Greater Kalamazoo Color Computer Club. Protocol is reported to be 7/E/1.

At the April meeting, the Hosford brothers demonstrated an "Eliza" artificial intelligence program. Hugh Betz also demonstrated the J & R Electronics 512K upgrade he built from their bare board.

At the next meeting, we <MAY> have a guest speaker on networking with the CoCo.

Attending CCUG members voted to participate in the upcoming computer fair.

My thanks to our President, Dale Knepper, for calling me so that this information could be included in this issue.

///// Where's Benchboard? /////

Due to the announcement at the left as well as technical difficulties, Benchboard BBS was <temporarily> offline during the time that Energy readers received their April issue. Talk about timing!

//////// Other Notes //////////

Some members are aware of the fact that I have a interest in Motorola-designed microprocessors (that is what drew me to the CoCo). Motorola sent to me "The Source" which provides listings of 8/16/32 bit software manufacturers. I also received an actual (unencased) sample of THE super-micro, the MC68020 32-bit microprocessor mounted on a display card. I'll gladly bring these items to the next CCUG meeting. See you there!

////////////////////////////////////



JOSEPH W. WERNER

Independent Systems Consultant

202 University Drive
P.O. Box 926
East Lansing, MI 48823

(517) 337-7415
MCI Mail: JWERNER

UPCO

Users' Personal Computer Organization

About UPCO:

UPCO was formed in early 1982 and is a non-profit organization of personal computer users in the Lansing area. Membership is open to anyone with an interest in personal computing. Most members have an IBM computer but there are also members with Tandy, Compaq, DEC, Leading Edge, DataVue, Columbia, and others.

Meetings:

UPCO meets the 4th tuesday of every month (except in December when Christmas interferes) at 7:30 p.m. in room 116 (auditorium) of the Agricultural Engineering building on the MSU campus in East Lansing. The Ag Eng building is located on the SE corner of Shaw and Farm Lane (across the street from the Planetarium). The structure of each meeting is usually:

7:30 - 7:45 Club announcements
7:45 - 9:00 Main presentations
9:00 - 9:15 Break - sign up time
9:15 - 9:20 Door prize awarded
9:20 - 9:30 Open question and answer

The times will vary according to the length of the presentations. To be eligible for a door prize you must be a paid member and in attendance.

Dues:

UPCO dues are \$5.00 per person per 12 months and can be paid at the meetings or can be paid by sending a check made out to: Dick Janson
8902 Bath
Laingsburg, MI 48848

Affiliations:

UPCO is a member of the Michigan Computer Consortium, and of the the IBM Exchange organization.

Newsletter:

UPCO members receive each month a copy of ENERGY, published by the Michigan Computer Consortium, as a benefit of membership.

Bulletin board:

UPCO maintains a RBBS for its' members from 6:00 p.m. till 8:00 a.m. (all day weekends) at 517-355-6594. Mesages may be left/read and software up/downloaded.

DAM list:

UPCO keeps track of data about members thru the DAM list. When each member signs up, a form is filled out indicating the users' hardware/software combination and this info is compiled and made available to each member from time to time. Only the summation of each category is made available and not the names so as to protect each members' privacy on this matter. Members are encouraged to keep their info as accurate and current as possible. The purpose of this list is for the situation where one member would like to talk with another member about a particular piece of hardware or software. The member should contact the keeper of the DAM list and find out if another member has the hardware or software of interest. The keeper of the DAM list will arrange for the two parties to talk.

Special Interest Groups (SIGs):

UPCO currently has the potential for forming a SIG around particular machines or topics of common interests. There could be one for the PCjr, the 'C' language, or the Tandy 1000. If you interested in forming or joining a SIG please let the president know.

Free software:

UPCO makes available many diskettes free for the copying at the meeting. Each member should bring some pre-formatted blank diskettes to the meeting to do the copying. Blank diskettes will be sold at the meeting by UPCO (\$1.50/black and \$2.50/other colors) for the members' convenience.

Club software library:

UPCO has a club software library of over 60 diskettes that sell for \$5.00 each to members. Members can fill out an order form at each meeting requesting the particular volume desired and turn this form over to the software librarian. Members are encouraged to contribute their own public domain software and in doing so will be granted a free diskette in return. UPCO does not tolerate PIRATING software by members.

Officers:

Office	Officer	Home phone
President.....	Skip Osterhus....	517-321-3425
Treasurer.....	Dick Janson.....	517-675-7453
Software librarian.....	Les Mack.....	517-339-8835
Secretary.....	Doug Pfister.....	517-332-6069
Keeper of the DAM list....	Jerry Warren.....	517-321-7599

UPCO

UPCO Notes

by Skip Osterhus

Old business:

March meeting: March 25th, 1986 at 7:30 p.m.
Place: Room 116 of Ag Engineering, MSU campus
Attendance: 49
Door prize: Side Kick
Winner: Jerry Schrader
Speaker: Joe Werner
Topic: LANS (local area networking from a technical viewpoint)
DOM: Yes - PC-File 4.0
EXCHANGE: March/April combined

New business:

May meeting: May 27th, 1986 at 7:30 p.m.
Place: Room 116 of Ag Engineering, MSU campus
Attendance: ?
Door prize: Surprise
Winner: ?
Speaker: Skip Osterhus
Topic: Getting to know DOS (quiz will follow)
DOM: Yes
EXCHANGE: Expected

11

***** MID MICHIGAN COMPUTER SHOW *****

This is the official information on the show to be held Sunday May 18th, 1986 at the Clarion Hotel and Conference Center (i.e. Long's). The show starts at 10:00 a.m. and runs till 5:00 p.m., with seminars starting at 12:00 noon and running till 4:00 p.m. (note - each seminar is for 1 hour). Admission will be \$2.00 per person and children 12 and under will be admitted free as long as they are accompanied by one paid ticket. This is to be a commercial show and you will be able to buy merchandise at it and sign up for membership in the computer clubs of Lansing. The show is being sponsored and financed by the Lansing area computer clubs and proceeds will go to the club's treasury, so your attendance is a vote of support for the local clubs and the merchants at the show. This month's ENERGY should contain 3 (8 1/2 by 11") flyers announcing the show. We would appreciate it if you could pass these out, or post them somewhere so we can get maximum advertising. You may reproduce them if so desired.

I'm hoping that all UPCO members will be able to attend this show and bring along other members of the family and friends alike. If you do attend please stop at the UPCO table and see what we have to offer that day. There will be doorprizes at the show and UPCO will try and have a few surprises as well. We will have most if not all of our club library available for purchasing and also all of our free disks will be there for you to copy as well. If the show turns out to be the hit I think it can then the sponsoring clubs will plan on having another. I strongly believe that this show will be enjoyed by all and your attendance will make it a 'HIT'. If you buy some merchandise from the vendors then I'm sure they will feel it is a 'HIT' as well and they will be more inclined to be in the next show. So you see how much 'YOU' mean to the success of this show. I've had the pleasure to be the show chairman and work with a great group of people from the other clubs, and have told them just how much the UPCO group supports personal computing. Please show them for me! See you there and thanks!

Please check the mailing label on each issues of ENERGY that you receive. If your address changes and you do not notify us then you might not get your next issue of ENERGY. Keep in mind that your address label is also a reminder of you current membership status. There will be a message on the the label stating 'Renew now' one month before your membership expires and the month it does expire the message will be 'Expired'. It is important to keep your dues current in order to buy club diskettes and have full access to the bulletin board as well!

Please check this column for the exact date and location of the meeting each month. Although the calendar in the front of each issue is correct most of the time, this column is the final word on the subject.

PCjr owners interested in a PCjr SIG may contact Ray Robins at (H) 517-694-1926 or (W) 517-377-9383. If there is enough interest then Ray will schedule a meeting. Please let Ray know of your interest in the PCjr and let's get the SIG of to a good start.

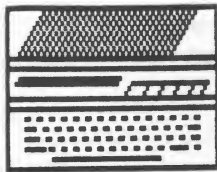
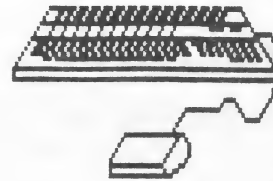
I would like to take this space this month and thank all of the membership for their continuing support of the club. I appreciate each month when you take time to show up at the meetings, and I hope that the presentation is enjoyable enough to make you want to come back each month. As always I welcome feedback on the state of the meetings past and present. You are the club as far as I'm concerned and UPCO will only be as strong as you let it be. Don't forget that you can convey your thoughts to me at each month at the meetings, on on the phone (517-321-3425) or through the bulletin board (517-355-6594). I will close by saying "As always I welcome any articles you would like to submit to ENERGY and any other contributions you can think of". See you at the meetings!

CHAOS

CAPITOL
HILL

ATARI

OWNER'S
SOCIETY



BIG ANNOUNCEMENTS

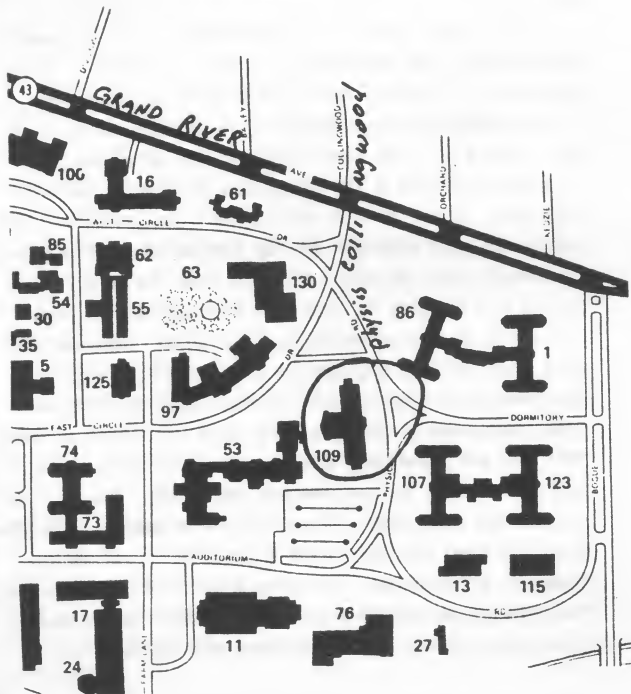
C.H.A.O.S.
HAS
MOVED

OUR NEW HOME

As of the April meeting, CHAOS will meet at a new time and place. Our new home is the MSU Physics-Astronomy Building on Physics Rd. There is plenty of parking in the gated lot next to the building. The General meeting will be on the third Saturday of each month, at 10:00 am in room 118 - the main auditorium. Setup begins at 9:00 am.

The ST interest group will meet on the second Saturday of each month - same time and place.

Enter the MSU campus via the Collingwood Entrance (east of Abbott). From Collingwood, take the first left onto Physics Rd. The road will curve slightly to the right. The Physics-Astronomy Building is the first building on the right. Go just past it to the gated parking lot (gate will be up).



MSU PHYSICS
ASTRONOMY
BLOG

MAIN AUDITORIUM
ROOM 118

CHAOS

ADVENTURES IN BBSLAND

by John Nagy

Things are changing on the CHAOS BBS! ((517) 371-1106) By the time you read this, we should be running a 1200 BAUD modem (300 still available)! We have sold the three INDUS drives we had, and replaced them with a PERCOM master and two double sided double density slave drives. This change resulted in about doubling the file storage room on the system, as well as being a lot cheaper! With the sale of the INDUSes and the old modem, we had almost enough cash to pay for the entire cost of the 1200 baud VOLKSMODEM without asking the treasury for help! It is a good day when you can make two dramatic improvements at almost no cost.

It was another good day a few months ago when our ROB PECK talked BILL WILKINSON at OPTIMISED SYSTEMS SOFTWARE (OSS, makers of DOSXL, BASICXL, BASICXE, etc.) into GIVING us a BASIC XE cartridge for use on the BBS with our 256K 800XL. Modifications using this fantastic BASIC will be continuing for many months! Look forward to message reply chains, E-MAIL, MUCH faster response, and just about a jillion new bells and whistles...

We did several polls and discovered the following information about our users on the CHAOS BBS (with active passwords numbering over 300!):

"WHO/WHERE ARE YOU?"

Total number of votes:73

CURRENT CHAOS CLUB MEMBER :33 - 45%
LOCAL ATARI (NON-MEMBER) :11 - 15%
LOCAL NON-ATARI USER :12 - 16%
LONG-DISTANCE IN MICHIGAN :6 - 8%
CALLING OUTSIDE MICHIGAN :11 - 15%

Keep in mind that this is ONLY reflecting the votes of callers who are validated repeat users. (We get as many as 5 one-time callers in a day!) Maybe you are as surprised as I was to find nearly a quarter of all callers are LONG DISTANCE! CHAOS has gotten quite a national reputation thanks to your help and participation, and especially due to CLAUS BUCHHOLZ's co-operation and promotion of us as the primary outlet for his 256K XL upgrade information. (We have over a dozen drivers, files, and texts on upgrades now!)

"HOW OLD ARE YOU???"

Total number of votes:74

Age 0 to 12 :2 - 3%
Age 13 to 16:12 - 16%
Age 17 to 25:14 - 19%
Age 26 to 35:31 - 42%
Age over 35 :15 - 20%

Quite a spread... average age of about 28, not the typical kiddie group here!

"WHAT KIND OF EQUIPMENT?"

Total number of votes:72

ATARI WITH 300 BAUD MODEM :41 - 57%
ATARI-300/1200 BAUD MODEM :11 - 15%
NON-ATARI W/300 BAUD MODEM:14 - 19%
NON-ATARI W/300/1200 BAUD : 6 - 8%

Looks like 20% of all ATARI users have a 1200 baud modem, but almost 50% of non-ATARI users have them. Now that we are going to offer 1200 baud, I expect more ATARI people will get them too, as well as getting more and better uploads from around the country.

Elsewhere, "THE CLUB" BBS (not affiliated with CHAOS) is supporting the ATARI ST series of computers exclusively with text, programs, tech help, and discussions in several forums. Try TERRY CONKLIN's system (run on a RADIO SHACK) at (517) 372-3131. MAGRATHEA (646-9114) is a very popular ATARI run BBS with humor as its main purpose. Lots of activity there, and some of it even makes sense... SysOp RANDY PEARSON will be trying to stamp that out, though. Still waiting on new software and features that are promised at PANAMA (both I and II)... at this writing, neither of the PANAMA ATARI systems are up.

Check the messages in any local BBS to find out what other systems are up or down in the area... they can come and go too fast to get written up!

Til next month, see ya in CHAT!

The following program, as well as the Picasso and Darts programs printed in the March issue, are reprinted from Mark Brown's "Atari's Small Miracles" column in Current Notes.

SUNBURST

SUNBURST draws a circle made up of criss-crossing lines, then draws another circle inside of it with smaller lines, a smaller circle inside of it, and so on, changing colors all the while. It's a slow circle, using the SIN and COS functions to figure out the coordinates, but perhaps its lack of speed can be considered part of its artistic value.

```
10 DEG :GRAPHICS 23:R=45:D=10:FOR A=1
TO 7:FOR B=-90 TO 90 STEP 2*R/D:X=R*CO
S(B):Y=R*SIN(B):COLOR INT(4*RND(0)+1)
20 PLOT 80+X,48+Y:DRAWTO 80+X,48-Y:COL
OR INT(3*RND(0)+1):PLOT 80-X,48-Y:DRAW
TO 80-X,48+Y:DRAWTO 80+X,48+Y
30 POKE 708+INT(3*RND(0)),PEEK(53770):
NEXT B:R=R-D:D=D-1:NEXT A
```

CHAOS

CHANGES AND MORE CHANGES

by Leo Sell and John Nagy

Those of you who were not at the March meeting may not know some of the major changes that took place.

Not only did we change time and place for future meetings...
Not only did we elect new officers...

We elected them to new offices. The new offices were a result of the Club adopting a new Constitution and Bylaws. As a result, our elected offices are now:

President
Vice President
Secretary-Treasurer
At-Large-Representative, 8 bit
At-Large-Representative, 16 bit

These changes took place as a result of the evolution going on in Atari computing. We now have more computer users than "hackers" or programmers. We also have machines with 2 different architectures and purposes. Therefore, we felt it was important to completely restructure the management of CHAOS.

The other big change in the BYLAWS and "official" structure of the club is the ACTIVITIES BOARD.

Until now, the Newsletter Editor, the BBS sysop, the Program Co-ordinator, SIG leaders, Librarians, etc. had no official position on the Board of Directors or anywhere else. Consequently, they were often doing the majority of the day-to-day work of running the club but were not part of the decision making process. When the President would ask them to come to a Board meeting, the crowd would get too large to handle!

Additionally, the Board and President had the responsibility for direct supervision of the club activities. This resulted in the focus of the Board being INWARD, at the activities, with little time for looking OUTWARD towards the promotion, development, and future of the club.

We have re-organized the Board of Directors to include two Members-at-Large who must NOT be activities leaders so as to try to keep them objective representatives of the membership. The focus of the Board of Directors will be policy, budget, and OUTWARD looking projects. The President will chair and oversee these projects.

The Vice-President will now chair the "ACTIVITIES BOARD", made up of all the leaders of the continuing activities within the club. The ACTIVITIES BOARD will be responsible

for organizing and continuing all the regular features of the club (INWARD looking).

We hope this structure will help the club to become more effective in making CHAOS the best it can be.

THE CORNER LIBRARY

Lots of excitement from the CHAOS disk library. The librarians are in the process of revising and consolidating the libraries to bring you disks of high quality as always.

PRINT SHOP graphics disks, from JACS, have been added to the library. Currently there are 2 disks with a third expected in April. If you have Print Shop, here is an opportunity to get more than 100 graphics, created by users like you and I, for the regular library price of \$5.00 each (add \$1.00 for mailing if you mail order).

DISK OF THE MONTH SUBSCRIPTION are now available. The librarians are now accepting subscriptions, from members only and from exchange clubs. For the high quality programs being offered on the DGM, \$50.00 for a year's subscription is a real bargain. Remember, this is a minimum of 12-14 disks - a net cost of \$4.00 a disk or less. If you are a member of CHAOS or if you are an exchange club, here is an opportunity for you to stay current on public domain software. We now offer the freshest programs around. Don't miss any of them...
Mail \$50.00 and your name, address and membership number, to:

CHAOS
PO Box 16132
Lansing, MI 48901
ATT: Library

NOTES...

Watch for an article answering common questions about DOS. Mail questions to CHAOS PO Box 16132, Lansing, 48910, Att: Editor

We still need VOLUNTEERS for the very soon to come Computer Show. Call Leo Sell or John Nagy. GET INVOLVED!!

MID-MICHIGAN COMPUTER SHOW

Sunday, May 18
10am to 5pm

LONG'S - S. CEDAR

Volunteers needed
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tables. Call today

CHAOS

XE CONSOLE KEY FIX...

...that really works.

by John Nagy

I found that I was not alone when I started having trouble getting my console keys to work on the ATARI 130XE the CHAOS club used for its BBS. It seems that very many of the machines develop this problem. I asked around and found several others that had done as I did, opened the keyboard and cleaned the button contacts, only to get good results for a week or so before losing them again.

I then received a couple reprints of articles suggesting hardware fixes. I tried a couple that did not work, but one that worked the best came from Alan Haskell (printed in the SBACE GAZETTE, April/May '86). Here's how, with a small modification to save you the trouble I made for myself trying his recommended installation.

You will need a small phillips head screwdriver, needle nose pliers, a small soldering iron, and three 3k (3,000 ohm) resistors. Quarter-watt rating is plenty, in fact, the smaller the resistors are physically, the better.

1. Turn over the XE computer and remove the 4 screws that hold it together. Turn the computer over again and remove the top half of the case.

2. Lift out the keyboard and gently pull the ribbon out of its connector. DO NOT OPEN THE KEYBOARD as cleaning internally will not help, and you may damage the carbon tracks on the baking sheet inside.

3. Remove the motherboard from the lower half of the case by removing the phillips screws holding it down.

4. Remove the top and bottom metal shields from the board by carefully straightening the bent tabs that go through the board.

5. Observe the top and underside of the connector you pulled the keyboard ribbon out of. As seen from the top as you would look at the computer normally, there are 24 connections, with connection #1 at the left and #24 at the right. Connection #3 (from the left) is the ground connection. The last 4, #21, #22, #23, #24 are the START, SELECT, OPTION, and RESET connections. When a connection is made from these points to the ground, the computer will know one or several of the keys are being pushed. Due to a design problem, the console keys have a bit too much resistance to always register

even when you really lean on them. So, we will install the three resistors between the connections and ground so as to "leak" a bit more ground signal to the computer. That way, not nearly so good a connection is required by the actual keys when pressed.

6. Identify the proper pins on the bottom side of the circuit board. We will install the resistors under the board.

7. Solder one end of all three resistors together. Then connect this common end to the ground connection (pin 3). Then solder the free end of the resistors, one each, to pins 21, 22, and 23. (The SYSTEM RESET never seems affected, nor do any other keys.)

8. Be certain that the wires on the resistors do not touch each other nor any other circuitry! Use as little solder and as short a heating time as possible. Tape the resistors to prevent shorting if needed, and press them close to the circuitboard.

9. Reassemble the shields to the board, bending back the tabs to hold it all together. Look inside to be sure the resistors do not touch the lower shield.

10. Complete the re-assembly, taking extra care not to stress or insert the keyboard ribbon too many times. The spring contacts bend easily, and the conductive coating on the ribbon, if scratched through, will cause the keyboard to be useless. Don't worry too much, that's hard to do if you are careful. (The original mod suggested pressing the resistor leads into the connector so as to make it solder-free and simpler.... but that "simplicity" ruined my connector and made hour more work! Solder it!)

11. Test the repair. Power up the machine and type in this one line basic program:

```
10 PRINT PEEK(53279):GOTO 10
```

Then type RUN. You will see a row of 7's down your screen. Push OPTION. They should turn to 3's. SELECT will give you 5's, and START will give you 6's. Combinations will give other numbers from 1 to 7. If each key responds, you have finished the repair.

This has permanently fixed the problem on dozens of XE's. It has restored my keys to "feather touch" after a long siege of having to boot 5 or 6 times mashing the OPTION key trying to get a boot without BASIC. It WILL work for you.

John Nagy, SYSOP of the CHAOS BBS
(517) 371-1106

CHAOS

HIGHLIGHTS FROM HANOVER

(The following is a compilation and condensation of information from Antic Magazine reports from the Hanover West Germany computer show and downloaded from the CHAOS BBS.)

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The IBM-ST??

IBM compatability was demonstrated by Atari. The MS-DOS box looks like a hard disk drive, plugs into the ST through the DMA port and currently gives 90% compatibility. 99% compatability for graphics oriented software such as Lotus is expected when all of the BIOS routines are completed.

It may also offer some multi-tasking potential when used as a co-processor.

Projected price is near \$300.00.

ANTIC publisher Jim Capparell saw the ST running MS-DOS and Multiplan.

Atari also announced a CP/M emulator that should be available soon in the U.S. for \$49.95.

In Germany, computer magazines are already advertising CP/M software for the ST including Micro Pro Wordstar 3.0 "fur den Atari ST." Another magazine featured a review of Borland's Turbo Pascal running on the ST with CP/M emulation.

8 bit products included the long awaited 80 column adaptor (runs through the serial port though). and the XC11, a replacement for the 1010 recorder, to be bundled with the 130XE.

Other products shown or announced include:

A plug in card that gives the ST two RS-232 ports (50 pounds).

The Colourspace light synthesizer from Llamasoft created a lot of excitement. It is already available in the U.S. through Apex Distribution in Boston, Mass. (\$29.95).

Supra Corp showed their 20 meg hard disk-claiming it is 3 times faster than Atari's will be. (\$1000). They also showed ANTIC a 60 meg prototype and hinted about a future streaming tape backup.

Mirrorsoft announced Fleet Street Editor, a word processing and graphics page layout program, similar to Newsroom on the Apple II, but produces "professional level" desktop publishing and photocomposition on the ST. (No price, Summer availability).

Sideclick, a Borlund Sidekick clone for the ST.

Several CAD/CAM packages including a plotter driver.

A barcode printer and reader.

A system to download weather info from satellite.

Metacomco will port a full implementation of Cambridge LISP to the ST (Fall).

Fortran 77 and Fortran-compatible software for engineering applications.

At the current exchange rate, the Apple Macintosh costs \$4000 in the U.K. Not surprisingly, the ST is eating it up. European programmers and dealers have been quick to take advantage of the incredible price/performance ratio the ST offers.

C.H.A.O.S. BBS
517-371-1106

Call today

C.H.A.O.S. Officers and Leaders

Position	Name	Phone #
President	Leo Sell	393-7792
Vice President	John Nagy	487-5646
Sec'y-Treasurer	Gary Ferris	393-2593
8-bit Rep.	Adam Slonim	485-7348
16-bit Rep.	Barry Schroeder	627-6708
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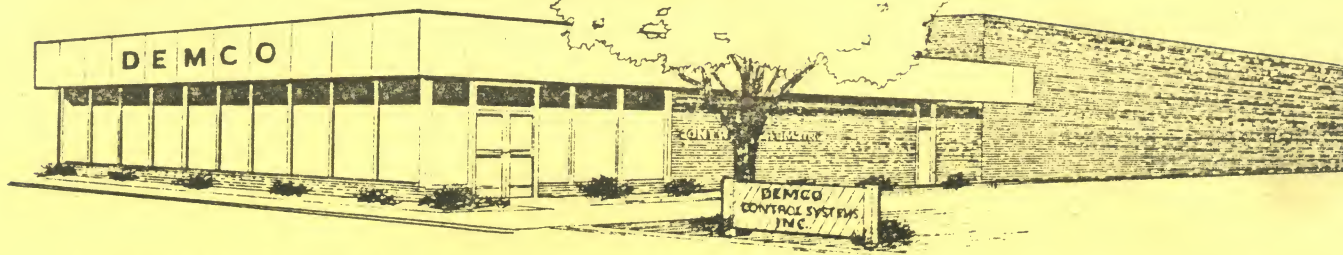
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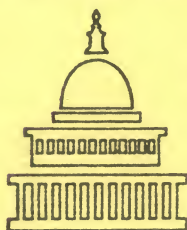


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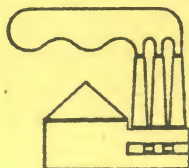
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